

Amendments to the Claims

Please amend the claims as follows:

Claims 1-12 are cancelled.

13. (currently amended) A rotary apparatus adapted to perform as, compressor, pump, motor, metering device or an internal combustion engine, comprising [[of]]:

two identical vanes,

two hollow sleeves,

a hollow liner,

timing devices including cams and associated linkages,

a couplings/clutch,

a shaft, and

a braking/holding arrangement;

wherein said cams define a variable initial angular displacement between vanes at the start of a sequence, commencing with one of said vanes being stationary and the other being rotating [[vane stationary and other rotating]] such that on reaching an angle of 360 degrees minus twice the initial angular displacement, both vanes rotate together through the [[said]] initial angular displacement and the two vanes reach an [[the said]] initial position with the individual vanes position interchanged, subsequently the previously held vane rotates and previously rotating vane is held stationary until the rotating vane reaches an angle of 360 degrees minus twice the initial angular displacement from the stationary vane and so on continually;

wherein said vane are fitted on to the hollow sleeves, said one vane on each sleeve, such that the vanes are radial to sleeve's surface and at one of the ends of each sleeve;

wherein said vanes are so fitted that some portion of a vane surface protrudes out of the sleeve's end;

wherein said sleeves are placed such that [[their]] the ends of said sleeves fitted with vanes are placed adjacent, with the vanes angularly displaced by a minimum angle which is controlled, varied by said cams;

wherein said surfaces where the vanes are attached on the hollow sleeves [[is]] so as to allow [[such that it allows]] a rotation of the adjacent vanes and [[sleeve]] said hollow sleeves fitting about a [[the said]] coaxial axis of said hollow sleeves;

wherein said vanes are placed inside a liner;

wherein said liner along with the sleeve [[surface]] surfaces forms an enclosure;

wherein said [[liner's]] liner having an inner surface is contoured along the path traced by [[vane]] an edge of said vanes while rotating about [[the]] said axis, thus allowing rotation of the vanes about [[the]] said axis;

wherein said vanes divide [[the]] said enclosure formed inside the liner into two chambers, characterized by the fact that said two hollow sleeves are coupled and uncoupled with a shaft by means of said coupling/clutching [[arrangement]] actuated by cams placed on and, or driven by the hollow sleeves~~[[,]]~~;

wherein said braking [[arrangements]] arrangement actuated by said cams or holding [[arrangements maintain]] arrangement maintains said vanes stationary at a controlled but variable position alternately;

wherein said cams define the angle by which the vanes are held stationary, separated, rotated simultaneously or independently; and

wherein said timing devices allow said both vanes to rotate simultaneously through a predefined variable angle resulting in [[the]] said rotary apparatus functioning with a variable compression ratio.

14. (currently amended) [[A]] The rotary apparatus as claimed in claim 13 wherein [[the]] said cams have a profile such that [[the]] an angle that the beginning and end of profile makes to the center line of the [[cam]] cams, [[define the, and is equal to the,]] defines, and is equal to, a minimum angle of separation between the vanes during operation; [[and]]

wherein [[the]] said minimum angle of separation defines the compression ratio~~[[,]]~~; and

wherein [[the]] said angle of profile to the center line is gradually varied along the central axis, allowing alteration of [[the]] said minimum angle of separation between the vanes during operation by moving cam followers along the central axis through which [[the]] said angle of profile is varied, thus resulting in variation of said compression ratio

15. (currently amended) [[A]] The rotary apparatus as claimed in claim 13, wherein the hollow sleeve end surfaces adjacent to each other are provided with sealing elements forming a continuous sealing line around said end surfaces blocking a leakage flow.

16. (currently amended) [[A]] The rotary apparatus as claimed in claim 13, wherein said vanes are provided with sealing elements for blocking a leakage fluid flow across the vane [[edges]] edge.

17. (currently amended) [[A]] The rotary apparatus as claimed in claim 13, wherein sealing arrangements placed at the line and sleeve interface~~[[,]]~~ for blocking a leakage flow.

18. (currently amended) [[A]] The rotary apparatus as claimed in claim 13, wherein~~[[communicating devices or flow regulating devices such as ports or and valves are provided with, such that the said enclosure is communicated or sealed to spaces outside]]~~ the

enclosure is provided with a flow regulating device for controlling a flow into and out of the enclosure, the flow regulating device being selected from the group consisting of an intake port, an exhaust port, an intake valve and an exhaust valve.

19. (currently amended)[[A]] The rotary apparatus as claimed in claim 18, wherein: [[the communicating device or flow regulating devices such as valves, is so placed, operated or timed, such that the apparatus be used as a compressor, motor, pump or a metering device]]

the flow regulating device is placed on the enclosure so as to be able to use the apparatus as a device selected from the group consisting of compressor, motor, pump and metering device;

the flow regulating device is operated so as to be able to use the apparatus as a device selected from the group consisting of compressor, motor, pump and metering device; and

the flow regulating device is timed so as to be able to use the apparatus as a device selected from the group consisting of compressor, motor, pump and metering device.

20. (currently amended) [[A]] The rotary apparatus as claimed in claim 19, [[in which communicating devices and/or with means of energy addition and removal are provided, so place, operated and, or timed, such that the apparatus be used as a prime mover like an internal combustion engine with a variable compression ratio]] wherein:

a means for energy addition and removal is placed on the enclosure so as to be able to use the apparatus as an internal combustion engine with a variable compression ratio;

the means for energy addition and removal is operated so as to be able to use the apparatus as an internal combustion engine with a variable compression ratio; and

the means for energy addition and removal is timed so as to be able to use the apparatus as an internal combustion engine with a variable compression ratio.